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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/854,197	05/11/2001	Richard A. Thompson	(P43) SYCS-005	7928
959	7590	06/02/2005	EXAMINER	
LAHIVE & COCKFIELD, LLP. 28 STATE STREET BOSTON, MA 02109			PIZARRO, RICARDO M	
			ART UNIT	PAPER NUMBER
			2661	
DATE MAILED: 06/02/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/854,197

Applicant(s)

THOMPSON ET AL.

Examiner

Ricardo Pizarro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 7-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-13 is/are allowed.
- 6) ☒ Claim(s) 14, 15 and 20 is/are rejected.
- 7) ☒ Claim(s) 16-19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 14, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent No 5,550,805 ( Takatori ).

Regarding claim 14, Takatori discloses a failure restoration method in a mesh network comprising : providing software containing algorithms, said routing algorithms ( restoration algorithm/operation, col 4 lines 3 and 18-23) calculating routing paths for network traffic said network traffic originating at a source node ( source node A in Fig. 4) and traveling to a destination node , ( destination node I in Fig. 4), configuring a plurality of said nodes in said network through the use of said software so as to form a virtual ring ( for instance Ring 1 in Fig. 4, including nodes A,B,E and D, col 4 line 7) composed of said nodes and trunks, said virtual ring containing a plurality of working trunks and a plurality of protection trunk ( working and spare paths , col 4 line 16-17), said virtual ring containing an entry node for each circuit (each node of a logical ring holds information of an entry node number and an exit node number of all traffic in the logical ring , col 12 lines 15-23) , said entry node designating the node through which said network traffic passes from the nodes of the network which are not part of said virtual ring into said virtual ring ( traffic passing from the nodes not included in the

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nodes forming Ring 1); and said virtual ring further containing an exit node for each circuit (each node of a logical ring holds information of an entry node number and an exit node number of all traffic in the logical ring, col 12 lines 15-23 ) said exit node designating node through which said network traffic passes from said virtual ring to other nodes in the rest of the network which are not part of the virtual ring (traffic passing from the nodes not included in the nodes forming Ring 1), configuring said ring assigning a protection trunk to more than one calculated path through said ring ( upon failure transmission is done by using first section A-B and then BADE, col 4 lines 13-17).

Takatori did not specifically disclose said algorithm being provided to a selected node of the plurality of nodes.

However Takatori disclose providing said algorithm to the whole mesh network therefore selecting each and every node.

Therefore it would have been obvious to one of ordinary skill in the art that any node could have been equally selected since the whole mesh network is provided with said algorithm , in order to obtain a restoration method in a mesh network for automatically rerouting traffic for restoration when a failure occurs in a node or transmission line in a network.

The motivation to do is to provide a fast and highly reliable restoring method for a failure detected in a mesh network.

Regarding claim 15, the network includes a signaling and an optical component ( col 4 lines 21-23, col 12 line 36).

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3. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over US patent No. 5,550,805 ( Takatori ) in view of US patent No. 6,490,244 ( Pegrum).

Takatori did not disclose said ring contained in an OSPF area, as in claim 20

However Pegrum discloses a virtual ring contained in an OSPF area( col 2 line 60, col 3 lines 10-13), as in claim 20

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the Takatori reference by providing the OSPF protocol in order to obtain in a self healing network to hide a broken link with interruption in the network.

The motivation to do so is to obtain a failure restoration method in a mesh network for automatically rerouting the traffic for restoration when a failure occurs in a node.

#### **Allowable Subject Matter**

4. Claims 7-13 are allowed.

Claim 16-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim.

#### **Conclusion**

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US patent No. 6,366, 556 (Ballintine) discloses a self healing network using virtual rings.

US patent no. 6,744,769 (Siu) discloses Path provisioning on ring-based networks.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

(703) 872-9306

(for formal communications intended for entry, for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to 220 South 20<sup>th</sup> Street, Crystal Plaza Two, Lobby, Room 1B03, Arlington, Va 22202 (Customer Window).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Ricardo Pizarro** whose telephone number is (571) 272-3077. The examiner can normally be reached on Monday-Friday from 9:00 AM to 5:30 PM. The fax number for this Group is (703) 872-9306.

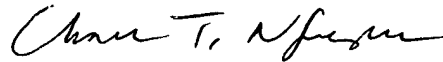
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Chau Nguyen** can be reached on (571) 272-3126.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

2005-05-25

**Ricardo M. Pizarro**



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SUPERVISORY PATENT EXAMINER  
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